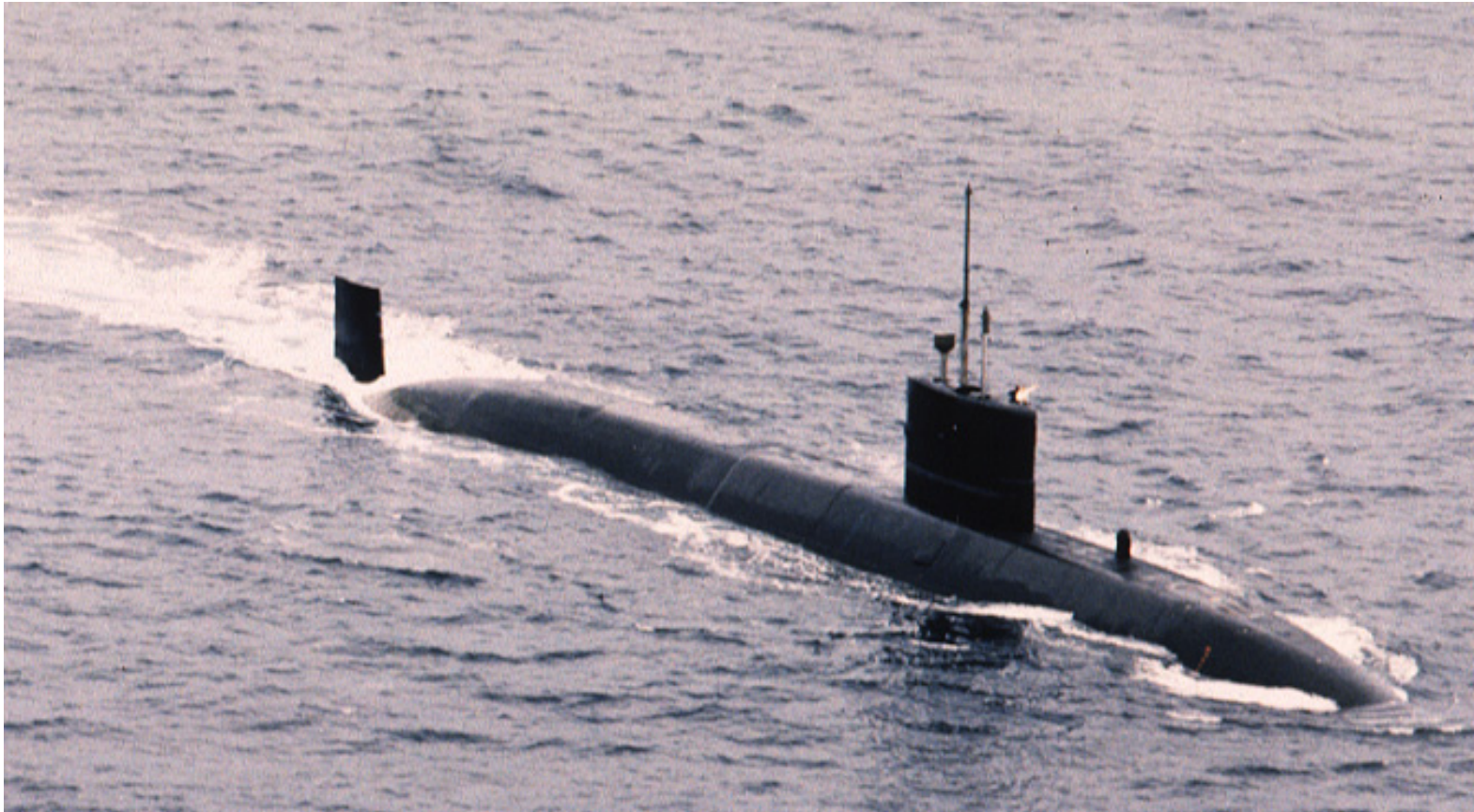




# C4ISTAR Issues for UK Submarines



*RUSI, 24 Sep 02*

Cdr Phil Buckley

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# Future Navy Operational Capability

- Versatile Maritime Force
  - Power Projection
  - Flexible Global Reach
  - Optimised Access
  - **C4ISR**





# Maritime C4ISR - The Ideal Platform

- Submarine Strengths
  - Deployed Early
  - Covert
  - Endurance
  - Size
  - Analysis Capacity
  - Tactical Mobility





A detailed illustration of a submarine underwater, viewed from a side-on perspective. The submarine is dark blue and sleek, with a conning tower and various sensors. The background is a deep blue, slightly hazy underwater environment. Four white text labels are overlaid on the image: 'Communications' at the top left, 'Visual' on the right side, 'Sigint' in the center, and 'Acoustic' at the bottom left. At the bottom right, the title 'Submarine ISTAR' is written in a large, bold, serif font with a white underline.

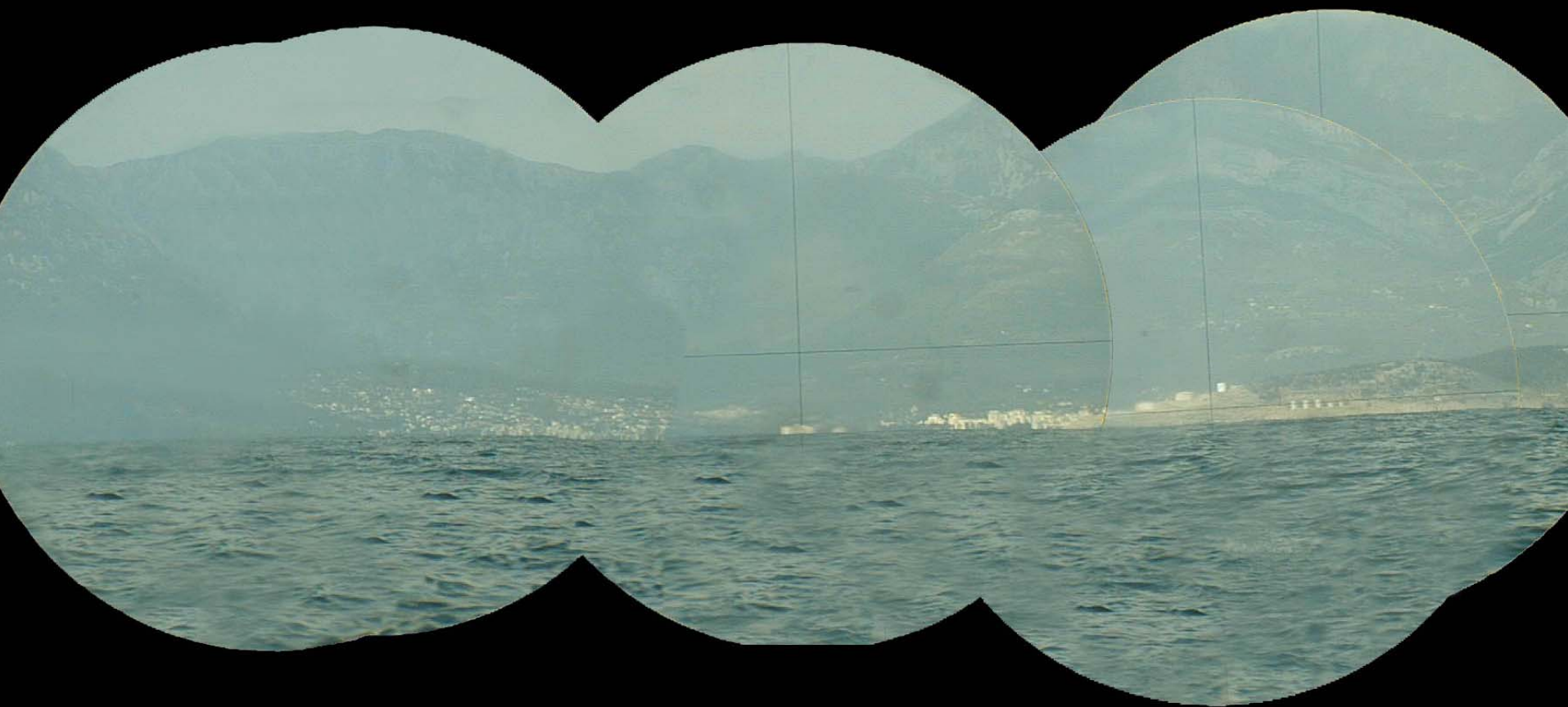
**Communications**

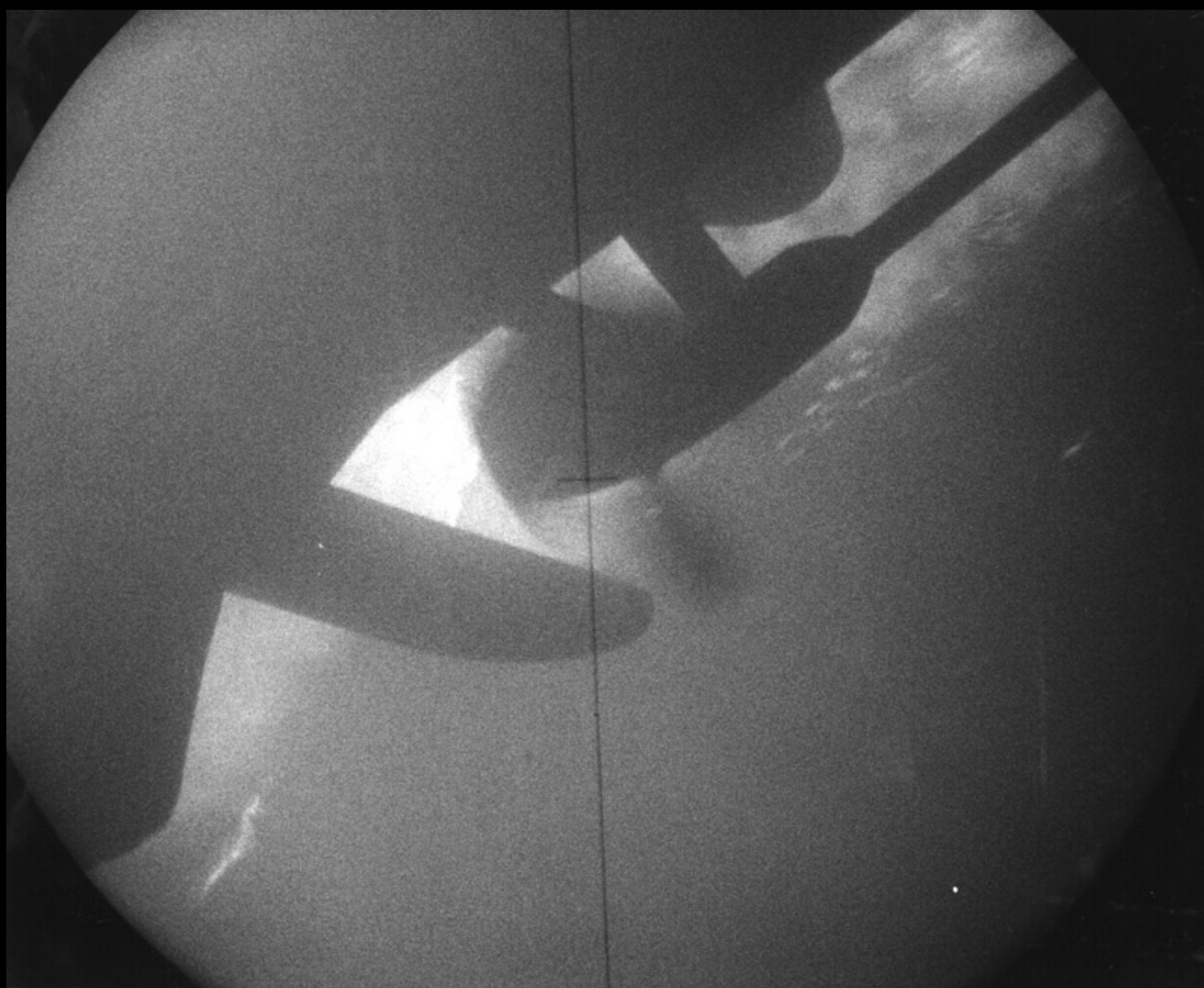
**Visual**

**Sigint**

**Acoustic**

**Submarine ISTAR**









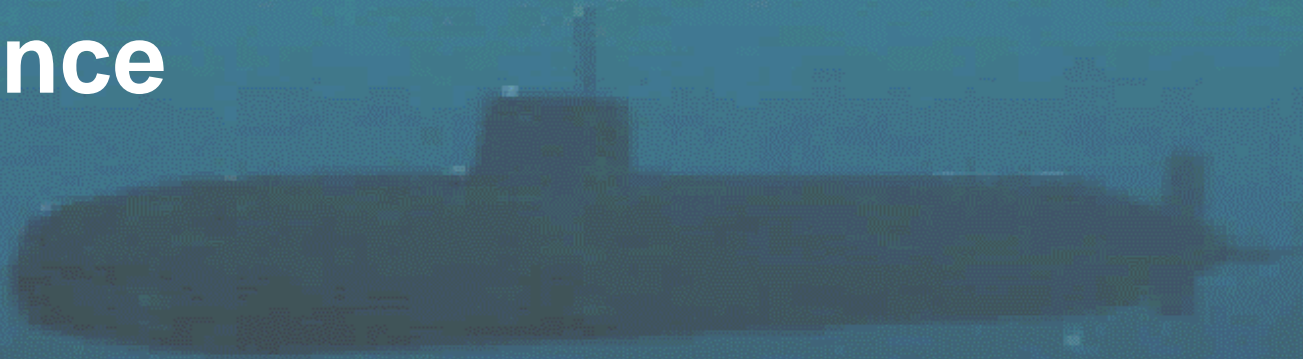


An aerial photograph of a submarine on the surface of the ocean. The submarine is dark and has a white wake trailing behind it. The water is dark blue with whitecaps.

# Signals Intelligence

- ELINT
- COMINT

# Acoustic Intelligence





# C4ISTAR

- Strategic or Tactical
- “Customer” requirements
  - Identify comms circuit
  - Identify level & type of activity
  - Subsequent action
- Submarine communications capacity and bandwidth





A blue submarine is shown underwater, angled towards the left. A red hand-drawn oval highlights the word 'Communications' in the upper left. The word 'Visual' is on the right side of the submarine's hull. The word 'Sigint' is on the side of the hull, below 'Visual'. The word 'Acoustic' is at the front of the submarine. At the bottom right, the text 'Submarine ISTAR' is written in a large, bold, serif font, with a horizontal line underneath it.

**Communications**

**Visual**

**Sigint**

**Acoustic**

**Submarine ISTAR**